Tropical Winds

The Official Newsletter of WFO Miami

Sunrise over Doral - August 2010 - Andrew Tingler

ISSUE 3 – WINTER 2010/2011

A Message from the MIC
Dr. Pablo Santos

Morning at Hollywood Beach - August 2010 - Chuck Caracozza

In This Issue…

Welcome to the winter 2010/2011 edition of the "Tropical Winds". Thankfully this hurricane season that just ended was uneventful for us. Now we have winter to look forward to. Winter in South Florida is the time of year when the population swells as the threat of hurricanes has passed and northerners migrate to enjoy the warmer weather. During the depths of winter the average day will contain highs in the mid 70s and lows in the mid 50s to near 60, and conditions are most often rain free as well. Of course there are exceptions such as this past winter. Early December is also the time of year when we tend to reflect back on the past hurricane season and see how it compared to previous years. In this issue we will take a look at both this past hurricane season and what we expect for the next few months across South Florida. Please know that I am available either via email (pablo.santos@noaa.gov) or via our public phone line (305-229-4528). Enjoy the articles.

Snow Flakes on the Miami Tower - taken by Dan Gregoria, Lead Forecaster

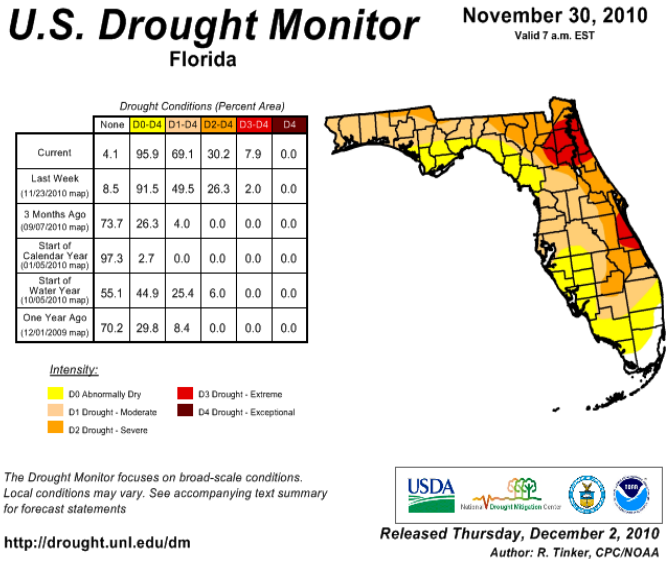
Weather Review and Outlook

Sunset through smoke in the Big Cypress Preserve from the Deep Fire near Alligator Alley

Late Summer and Fall Weather Review

By Andrew Tingler

Weather during the fall period has been close to normal across a large portion of South Florida, however abnormally dry to drought conditions have developed across much of the county warning area over the past few months. Temperatures during the late summer and fall period average out to around a degree of normal, however precipitation deficits of 2 to 4 inches exists from around West Palm Beach to Naples with larger deficits of 6 to 9 inches existing in the Lake Okeechobee region.



Holiday Season Climatology and Outlook

By Andrew Tingler

and Rob Molleda

Significant temperature variability can occur this time of year due to cold fronts which periodically move through the region. This variability can be noted in both the record minimum and maximum temperatures for December 25th and January 1st. Strong cold fronts followed by air masses of either arctic or polar in origin can affect South Florida during the holiday period, and some of the region's all-time coldest temperatures on record have occurred on or around December 25th. Examples of cold temperatures on Christmas Day include 1983 and 1989, when temperatures dropped to near or below the freezing mark

over virtually all of south Florida, with maximum temperatures only reaching the 40s. Although snow has never been recorded on Christmas Day in south Florida, frost did develop on Christmas morning 1989. Frost was noted on vehicles and rooftops all across south Florida, making that day about as close to a "White Christmas" as south Florida can expect. Air masses following cold fronts this time of year normally result in low temperatures in the 40s or lower 50s, with high temperatures in the 60s to around 70. Cold air masses usually don't linger for too long due to the modifying effects of both the Atlantic Ocean and Gulf of Mexico, with temperatures returning to near normal values 3-5 days after the coldest readings. Conversely, during warm periods, temperatures have also reached the 80s during the holidays, making some Christmas and New Year's Days feel almost like summer. This was the case during Christmas 2008 and 2009 when maximum temperatures reached the 80s over most of south Florida. Because of this variability in temperature, visitors are recommended to pack for both balmy and chilly weather.

Measureable precipitation (greater than 0.01 inches) falls on either December 25th or January 1st on a frequency of once every 3 to 6 years, depending on the location.

For the full holiday season report complete with records and averages click here.

This year for South Florida during December through February period the Climate Prediction Center (CPC) is expecting equal chances of above or below normal temperatures, however a below normal level of precipitation is expected due to a moderate to strong La Ninã. This lack of precipitation across the area will either serve to maintain the existing drought conditions or worsen and spread them across the rest of the region.

Hurricane Season 2010

A palm tree impaled by a 1X4 during Hurricane Andrew in Homestead- August 1992 - NOAA Library

By Dan Gregoria

The Atlantic Hurricane Season of 2010 was very active. There were a total of 19 named storms, including 12 hurricanes, 5 of which were major (Category 3 or higher).

Here is a look at how this year's hurricane season compared to the historical average:

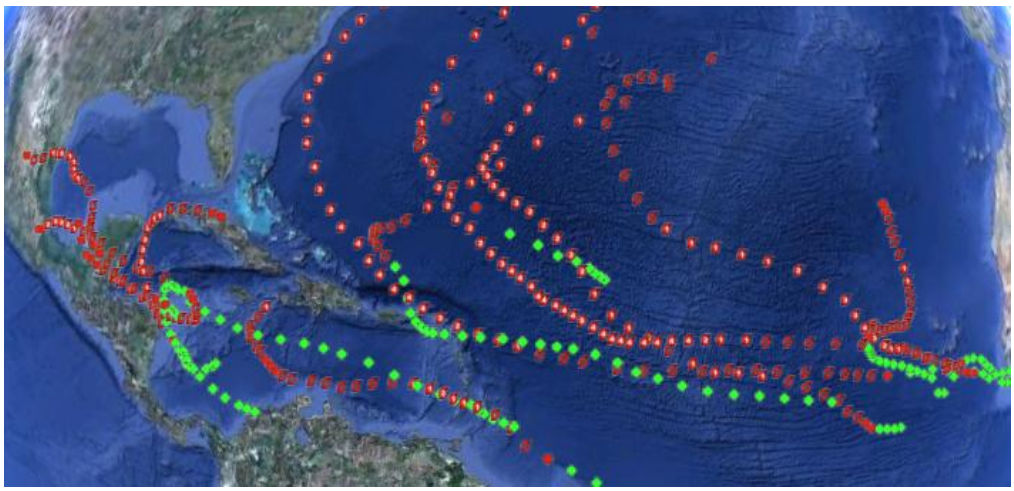
	Average (1966-2009)	2010
Total Named Storms	11.3	19
Total Hurricanes	6.2	12
Major Hurricanes	2.3	5

This season produced approximately double the activity of an average season! Despite this fact, impacts in the United States were relatively minor as the steering currents of the atmosphere allowed most of the tropical storms and hurricanes to either re-curve over the Atlantic or remain to the south, affecting Mexico and Central America.

2010 Atlantic Basin *Tropical Storm* Tracks

To the left are the tracks of the 7 tropical storms which developed this season. Two storms made landfall along the U.S. coast – Bonnie in South Florida and Hermine in South Texas. Bonnie had little impacts across South Florida.

To the right are the tracks of the 12 hurricanes which developed this season. No hurricane made landfall onto the U.S. coast this hurricane season.



2010 Atlantic Basin *Hurricane* Tracks

This season again shows that high activity in a season does not necessarily mean that it will be "active" for Florida, or any locale for that matter. Nor does an inactive season mean that

it will not be "active" for any one given location, i.e. Category 5 Hurricane Andrew striking South Florida in 1992…a below average hurricane season.

Big Cypress National Preserve - Dan Gregoria

By Dan Dixon

The Greater Miami Chapter of the American Meteorological Society (AMS)

Whether you are a meteorologist or just have an interest in weather, you may want to consider joining the Greater Miami Chapter of the American Meteorological Society (AMS). Membership in the Greater Miami AMS Chapter ranges from forecasters at the National Weather Service and National Hurricane Center, to researchers at AOML and RSMAS, as well as local media and storm spotters. There are generally between 5 and 7 regularly scheduled meetings per year, and most of these occur at the NWS/NHC facility on the FIU campus in Miami. If you are interested in joining, please email Mr. Neal Dorst at neal.m.dorst@noaa.gov. You may also wish to visit the Greater Miami AMS Chapter website at http://www.miamiams.org/.

Forth of July Fireworks over Miami - 2009 - Dan Gregoria

Dr. Jeral Estupiñán

Dr. Jeral Estupiñán arrived at WFO Miami in early November to fill in the recently vacated SOO (Science Operations Officer) position. Jeral comes to the Miami office via the

Brownsville, TX NWS office where he was the SOO for the past three years. Prior to working at Brownsville, Jeral was the Techniques Development and Forecast Verification Meteorologist and training officer at The Weather Channel. Welcome aboard Jeral!

Phillip Judd

Phil started his federal career with the USAF in 1974 and then joined the US Postal Service in 1977. He joined WSFO Miami in 1982 as a co-op student while attending Miami-Dade Community College and then was hired by the Weather Service Office in West Palm Beach. In 1988 he transferred back to WFO Miami where he was promoted to the Electronic System Analyst in 1995. Phil retired in November with 36 years of federal service and now will be able to watch the Dolphins and Canes games without interruptions from radar or ASOS problems. Congratulations on your retirement!

Tyrone Mosley

Tyrone began his federal career in 1971 when he joined the USAF. After leaving the Air Force in July of '75 he worked for the VA and then joined the NWS in January of 1976 at the NWSTC in Kansas City, MO. He then completed training and was assigned to the communication unit at the National Hurricane Center in Miami. Tyrone then went on to work for the WSOs in Augusta, GA and West Palm Beach, FL. In 1996 the Weather Service Office in West Palm Beach closed and he was reassigned to WFO Miami. Tyrone will be retiring with 39 years and 4 months of federal service. Thank you for your service Tyrone, and good luck on your future endeavors!

Bob Ebaugh

Bob Ebaugh has been selected to fill in behind Tyrone as the new Observation Program Leader (OPL). Bob has been at WFO Miami since 1977 and brings years of experience to the co-op program. Congratulations Bob!

Dan Dixon

We would also like to say farewell to Dan Dixon. He will be leaving WFO Miami for WFO Huntsville, AL in January to fill in a formerly vacant lead forecaster position. Dan started working for the NWS at WFO Morristown, TN in 1998, and has also worked at the WFOs Brownsville, TX and Fort Worth, TX and has been with WFO Miami since November of 2006. Farewell and Good luck!

Chihuly glass art at Fairchild Tropical Botanic Garden - 2006 - Andrew Tingler

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Dan Gregoria, Lead Forecaster *Dan Dixon, Lead Forecaster*

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